

Bosch Industrial Heat at ISH

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The new Bosch ELHB electric boiler for heating networks and industries

- ▶ Bosch is driving transformation forward: New electric boiler generates up to 5.5 megawatts of heat purely electrically
- ▶ Electric steam boilers (ELSB) by Bosch in use worldwide
- ▶ Bosch boiler technology enables the integration of alternative fuels

Bosch Industrial Heat is presenting electrical solutions for sustainable heating and process heat at this year's ISH in Frankfurt. One highlight is the new ELHB electric boiler for heating energy and hot water. "Electrification is a relevant factor for the success of the energy transition in the heating sector. With our new ELHB electric boiler, we are driving the transformation forward and offering municipalities and cities an opportunity to future-proof their district heating," says Daniel Gosse, Head of Marketing at Bosch Industrial Heat, adding: "The ELHB also enables building operators and industrial companies to organise their heat production sustainably."

Electrification of heating and process heat: The new ELHB electric boiler

Bosch will be showcasing the new ELHB electric boiler live at the Buderus joint stand C60 in hall 12. "The ELHB is a versatile power-to-heat solution that can be used flexibly in existing infrastructures and also in combination with energy systems such as heat pumps," emphasises Daniel Gosse. The electric boiler generates heating energy and hot water in the output range from 250 to 5,500 kilowatts at up to 16 bar. The increasing expansion of renewable energies makes the ELHB an attractive solution: The ELHB can utilise surplus green electricity for example from wind power and photovoltaics and convert it into climate-neutral heat with efficiencies of up to 99.6 per cent. Its output adapts precisely to both individual heating requirements and available surplus electricity.

The high demand for the Bosch ELSB electric steam boiler also shows that the need for electrical solutions is growing rapidly. Bosch offers the ELSB in

capacities from 350 to 7,500 kilograms of steam per hour and also exhibits it at the trade fair stand. Companies from various industries and countries operate the electric steam generator, including PepsiCo in Poland and the Stříbro dairy in the Czech Republic. Both companies use the ELSB to generate a large proportion of their steam demand purely electrically. The ELSB is combined with a gas-fired UL-S steam boiler, which offers further flexibility for the future thanks to its conversion options for alternative fuels. Those multivalent systems make it possible to integrate several energy sources into an overall system and prioritise the use of self-generated electricity or electricity based on dynamic electricity tariffs.

Solutions for green hydrogen and biofuels

In addition to electrification, Bosch Industrial Heat is driving forward the use of alternative fuels such as green hydrogen and biofuels: Mature technologies from Bosch can utilise up to 100 per cent of these green fuels or offer a combination of several fuels in one system. Hydrogen boilers by Bosch have been in use in chemical companies, for example, for many years. H₂-ready systems, which can be retrofitted in a future-proof manner when hydrogen becomes available at a later date, are another example. There are also plants with bio-oil boilers, including at the Norwegian district heating supplier Eidsiva Bioenergi AS. "With our pioneering solutions for sustainable heat and steam generation, we are the ideal partner for companies in heat supply as well as in industrial and commercial sectors worldwide. At ISH, our experts will provide prospective customers with advice on which technology makes sense based on their infrastructure, processes and individual requirements," emphasises Daniel Gosse.



Figure_01:

Bosch Industrial Heat will be presenting the new ELHB electric boiler live at stand C60 in hall 12. The ELHB generates heating energy and hot water in the output range from 250 to 5,500 kilowatts.



Figure_02:

The Bosch ELSB electric steam boiler at the Stříbro dairy uses surplus electricity to generate steam.



Figure_03:

The industrial experts at Bosch Industrial Heat advise on sustainable heating solutions: From electrification and hydrogen to modernisation.

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Bosch Industriekessel GmbH, a company of the Bosch Home Comfort Group, has been developing and manufacturing project-specific heating and process heat systems for more than 150 years. In keeping with its "Invented for life" principle, Bosch Industriekessel creates future-proof energy systems. The steam and hot water boilers increase the energy efficiency in production, buildings and district heating grids – by means of sustainable energy use and the seamless integration of Industry 4.0 applications. CO₂-neutral heating and process heat solutions with hydrogen and electrification help pave the way to carbon-neutral heating. Around the world, Bosch Industriekessel customers are offered a universal product portfolio, as well as planning support, project management and after-sales services such as maintenance and 24/7 support – all from one source.

Additional information is available online at www.bosch-industrial.com

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Additional information is available online at www.bosch.com, www.iot.bosch.com, www.bosch-press.com